

## METHOD AND APPARATUS FOR REDUCING COUPLING BETWEEN SIGNALS

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### Abstract of the Disclosure

A method and an apparatus for separating a composite signal into a plurality of signals is described. A signal processor receives a composite signal and separates a composite signal in to separate output signals. Feedback from one or more of the output signals is provided to a configuration module that configures the signal processor to improve a quality of the output signals. In one embodiment, the signal processor separates the composite signal by applying a first demodulation signal to the composite signal to generate a first output signal. In one embodiment, the signal processor also applies a second demodulation signal to the composite signal to generate a second output signal. In one embodiment, a phase and/or amplitude of the first demodulation signal and a phase and/or amplitude of the second demodulation signal are selected to reduce crosstalk. In one embodiment, the composite signal is obtained from a detector in a system for measuring one or more blood constituents.

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